

## Experimental Measurements of Fire Retardants on Plywood at Fire Test

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**Abstract :** The use and development of wood composite materials increased in the past few years. However, in Brazil there are some restrictions on these products regarding their use since it could be considered a potential risk in a fire situation. Thus, becomes evident the need for research aiming to fit these in safety standards. This study aims to evaluate the efficiency of two new fire retardant products produced by a Brazilian industry. Tests were performed on plywood panels of Pinus spp previously immersed, varying the products concentrations and compared with untreated samples. The test used to evaluate the flame spread in a panel was the modified Schlyter test. The product in question was proved efficient, before and after shutting off the burner. Comparing panels with the panels without treatment, there was a decrease of 400% of the height of the flame spread on the treated ones.

**Keywords :** fire retardant, flame spread, plywood, wood-based material

**Conference Title :** ICBMC 2015 : International Conference on Biobased Materials and Composites

**Conference Location :** Paris, France

**Conference Dates :** April 27-28, 2015